

WHAT IS CLAIMED IS:

1. An image pickup device comprising:
pixels each including a photoelectric conversion
unit and a transfer switch for transferring a
photoelectric conversion signal generated by the
photoelectric conversion unit; and
driving means for applying a pulse to the transfer
switch a plurality of times when the signal generated
by the photoelectric conversion unit is transferred via
the transfer switch.
2. An image pickup device according to claim 1,
wherein said pixel includes amplifying means for
amplifying and outputting the photoelectric conversion
signal transferred via the transfer switch.
3. An image pickup device according to claim 2,
wherein said driving means has an operation mode for
resetting an input portion of said amplifying means and
outputting a reset signal generated upon resetting from
said amplifying means and an operation mode for
outputting the photoelectric conversion signal from
said amplifying means, and wherein said image pickup
device further comprises subtracting means for
subtracting the reset signal from the photoelectric
conversion signal.

4. An image pickup device according to claim 3, wherein the photoelectric conversion signal and the reset signal include correlated signals.

5 5. An image pickup device according to claim 1, further comprising a circuit for controlling a read operation of a signal from said pixel or processing the signal from said pixel, wherein the transfer switch includes a MOS transistor, and wherein said pixel and
10 said circuit are formed by CMOS processes.

 6. An image pickup device according to claim 2, further comprising a circuit for controlling a read operation of a signal from said pixel or processing the
15 signal from said pixel, wherein the transfer switch and said amplifying means include MOS transistors, and where said pixel and said circuit are formed by CMOS processes.

20 7. An image pickup device according to claim 1, further comprising a circuit for processing a signal from said pixel and a lens for focussing light onto said photoelectric conversion unit.

25 8. A driving method for an image pickup device having pixels each including a photoelectric conversion unit and a transfer switch for transferring a

photoelectric conversion signal generated by
said photoelectric conversion unit, comprising:

5 a driving step applying a pulse to the transfer
switch a plurality of times when the signal generated
by said photoelectric conversion unit is transferred
via said transfer switch.

10 9. A driving method according to claim 8, wherein
the pixel includes amplifying means for amplifying and
outputting the photoelectric conversion signal
transferred via said transfer switch.

10. A driving method according to claim 9,
further comprising:

15 a step of resetting an input portion of said
amplifying means and outputting a reset signal
generated upon resetting from the amplifying means;

a step of outputting the photoelectric conversion
signal from said amplifying means; and

20 a step of subtracting the reset signal from the
photoelectric conversion signal.

11. A driving method according to claim 10,
wherein the photoelectric conversion signal and the
25 reset signal include correlated signals.

12. A driving method according to claim 8,

wherein said image pickup device comprises a circuit
for controlling a read operation of a signal from the
pixel or processing the signal from the pixel, wherein
said transfer switch includes a MOS transistor and the
5 pixel and the circuit are formed by CMOS processes.

13. A driving method according to claim 9,
wherein said image pickup device comprises a circuit
for controlling a read operation of a signal from the
10 pixel or processing the signal from the pixel, wherein
the transfer switch and the amplifying means include
MOS transistors and the pixel and the circuit are
formed by CMOS processes.